As a below named inventor, I hereby declare that:

My residence, post ffice address and citizenship are as stated bel w next to my name; I believe I am the original, first and sole inven-

which is claimed and for which a patent is sought in the invention entitled: GENE TARGETING IN ANIMAL CELLS USING ISOGENIC DNA CONSTRUCTS	ow) of the subject matter
the specification of which is attached hereto or x was filed on August 20, 1991 No. 07/748,342 and was amended on	as Application Serial(if applicable).
I have reviewed and understand the contents of the above identified specification, including the claims, as ame referred to above. I acknowledge the duty to disclose information which is material to the examination of the ance with Title 37, Code of Federal Regulations, \$1.56(a). I claim foreign priority benefits under Title 35, to of any foreign application(s) for patent or inventor's certificate listed below and have also identified below for patent or inventor's certificate having a filing date before that of the application on which priority is claim.	his application in accord- Inited States Code, \$119 any foreign application

Pri r Foreign Application(s)

COUNTRY	APPLICATION NUMBER	DATE OF FILING	PRIORITY CLAIMED UNDER 35 U.S.C. 119
none			Yes No
·			Yes No

I claim the benefit under Title 35, United States Code, \$120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, \$112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, \$1.56(a) which occurred between the filing date of the prior application and the national of PCT international filing date of this application:

APPLICATION SERIAL NO.	DATE OF FILING	STATUS		
none		☐ Patented	☐ Pending	☐ Abandoned
		☐ Patented	☐ Pending	☐ Abandoned

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) who are partners and associates in the firm of Townsend and Townsend to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

William M. Smith, Reg. No. 30,223 Albert J. Hillman, Reg. No. 20,134 James M. Heslin, Reg. No. 29,541

TOWNSEND and TOWNSEND Steuart Street Tower, One Market Plaza San Francisco. CA 94105 FULL NAME OF INVENTOR BERNS Anton First Name Anton First Name Fost Office Address Floris Balthasarstraat 2 2064 XP Spaarndam Full NAME INVENTOR First Name Anton First Name First Name First Name Inventor Fost Office Address Floris Balthasarstraat 2 2064 XP Spaarndam First Name Inventor Full NAME Inventor Reg. No. 30,223 (415) 326-2400 Middle Name or initial Middle Name or initial The Netherlands First Name Middle Name or initial First Name Inventor First Name Inventor Fost Office Address Full NAME Address Suttnerstraat 89 Fost Office Address Full NAME ADDRESS Full Name First Name Inventor Fost Office Address First Name Inventor Fi		SEND CORRESPONDENCE TO: William M. Smith TOWNSEND and TOWNSEND			DIRECT TELEPHONE CALLS TO: (name, registration number, and telephone number) William M. Smith			
FULL NAME Last Name		1 .		ower, One Market Plaza Reg. No. 30,223				
FULL NAME Last Name INVENTOR Berns Anton RESIDENCE City CITIZENSHIP Post Office Address FULL NAME Last Name ADDRESS FOST OFFICE CITY RESIDENCE CITY ADDRESS FOST OFFICE ADDRESS RESIDENCE CITY CITIZENSHIP Haarlem FIRST Name FIRST Name FIRST Name CITY COUNTY OF CITIZENSHIP FOST OFFICE ADDRESS SULTINETATE ADDRESS FOST OFFICE ADDRESS SULTINETATE ADDRESS FULL NAME Last Name FIRST Name FIRS						io. 30,223		
INVENTOR BERNS ANTON RESIDENCE City State or Foreign Country Country of Citizenship POST OFFICE ADDRESS Floris Balthasarstraat 2 2064 XP Spaarndam The Netherlands FULL NAME Last Name Robanus Maandag Els RESIDENCE City State or Foreign Country Country Country of Citizenship RESIDENCE City State or Foreign Country Country of Citizenship POST OFFICE ADDRESS Suttnerstraat 89 City State or Country The Netherlands FULL NAME Last Name First Name The Netherlands FOUL NAME Last Name First Name Middle Name or Initial Middle Name or Initial The Netherlands FOUL NAME Last Name First Name Middle Name or Initial The Netherlands POST OFFICE City State or Foreign Country Country or Country or Citizenship RESIDENCE City State or Foreign Country The Netherlands POST OFFICE Post Office Address City State or Country Zip Code POST OFFICE Post Office Address City State or Country Zip Code	_	<u> </u>				13-9600 or 🖾 (415) 326-2400		
RESIDENCE City State or Foreign Country POST OFFICE ADDRESS Floris Balthasarstraat 2 2064 XP Spaarndam FULL NAME Last Name First Name First Name Foreign Country RESIDENCE City State or Foreign Country FULL NAME Last Name The Netherlands RESIDENCE City State or Foreign Country FULL NAME Last Name The Netherlands FOST OFFICE ADDRESS Suttnerstraat 89 FULL NAME Last Name First Name The Netherlands FULL NAME Last Name The Netherlands FOST OFFICE ADDRESS Suttnerstraat 89 FULL NAME Last Name Haarlem The Netherlands FIRST Name Middle Name or Initial The Netherlands FOST OFFICE City State or Foreign Country FULL NAME Last Name Middle Name or Initial Middle Name or Initial The Netherlands FOST OFFICE City State or Foreign Country FULL NAME Last Name Middle Name or Initial The Netherlands FOST OFFICE Post Office Address City State or Foreign Country FOST OFFICE Post Office Address City State or Country Of Citizenship The Netherlands FOST OFFICE Post Office Address City State or Country Zip Code POST OFFICE Post Office Address City State or Country Zip Code		FULL NAME	Last Name	First Name	Middle Name or Initial			
CITIZENSHIP Spaarndam The Netherlands The Netherlands Post Office Address Floris Balthasarstraat 2 2064 XP Spaarndam FULL NAME List Name INVENTOR Robanus Maandag RESIDENCE City CITIZENSHIP Haarlem Post Office Address Bertha van ADDRESS FULL NAME List Name First Name City State or Foreign Country Country of Citizenship The Netherlands The Netherlands The Netherlands FULL NAME ADDRESS FULL NAME INVENTOR RESIDENCE City Sutherstraat 89 2037 LG Haarlem The Netherlands First Name First Name INVENTOR RESIDENCE City State or Foreign Country Country of Citizenship The Netherlands First Name Middle Name or Initial Middle Name or Initial The Netherlands First Name Middle Name or Initial The Netherlands Foreign Country of Citizenship The Netherlands First Name Amsterdam The Netherlands First Name The Netherlands First Name The Netherlands First Name Middle Name or Initial The Netherlands First Name The Netherlands First Name Middle Name or Initial The Netherlands First Name The Netherlands First Name Middle Name or Initial The Netherlands First Name State or Country of Citizenship The Netherlands First Name State or Country of Citizenship The Netherlands First Name State or Country of Citizenship The Netherlands First Name State or Country of Citizenship The Netherlands First Name State or Country of Citizenship The Netherlands First Name State or Country of Citizenship The Netherlands First Name State or Country of Citizenship The Netherlands	l	INVENTOR	Berns	Anton				
POST OFFICE ADDRESS Floris Balthasarstraat 2 2064 XP Spaarndam The Netherlands FULL NAME Last Name OF INVENTOR Robanus Maandag Els RESIDENCE City State or Foreign Country Country of Cittenship The Netherlands The Netherlands FOST OFFICE ADDRESS Suttnerstraat 89 2037 LG Haarlem The Netherlands FULL NAME Last Name INVENTOR te Riele Hein RESIDENCE City State or Foreign Country The Netherlands FOST OFFICE Suttnerstraat 89 2037 LG Haarlem The Netherlands FOUL NAME Last Name Inventor te Riele Hein RESIDENCE City State or Foreign Country Country or Cittenship The Netherlands The Netherlands FOST OFFICE Post Office Address City State or Foreign Country The Netherlands POST OFFICE Post Office Address City State or Country The Netherlands POST OFFICE Post Office Address City State or Country The Netherlands POST OFFICE Post Office Address City State or Country The Netherlands POST OFFICE Post Office Address City State or Country The Netherlands POST OFFICE Post Office Address City State or Country The Netherlands	_	RESIDENCE	City	State or Foreign Country ICC		Country of Citizens	Country of Citizenship	
ADDRESS Floris Balthasarstraat 2 2064 XP Spaarndam The Netherlands FULL NAME List Name Middle Name or Initial	2	CITIZENSHIP		The Netnerlands	The Nethe		ands	
FULL NAME List Name First Name INVENTOR Robanus Maandag RESIDENCE City State or Foreign Country CITIZENSHIP Haarlem FOST OFFICE ADDRESS Suttnerstraat 89 FULL NAME Last Name INVENTOR te Riele RESIDENCE City State or Foreign Country Country of Citizenship The Netherlands The Netherlands The Netherlands The Netherlands First Name INVENTOR te Riele Hein RESIDENCE City State or Foreign Country Country of Citizenship Country of Citizenship The Netherlands First Name First Name INVENTOR te Riele Hein City State or Foreign Country Country of Citizenship Citizenship Amsterdam The Netherlands The Netherlands Fost Office Post Office Address City State or Country The Netherlands			Post Office Address	City	State or C	Country	Zip Code	
INVENTOR Robanus Maandag RESIDENCE City State or Foreign Country CITIZENSHIP Haarlem The Netherlands FOST OFFICE ADDRESS Suttnerstraat 89 COUNTRY of Citizenship The Netherlands FULL NAME Last Norme INVENTOR te Riele RESIDENCE City State or Foreign Country COUNTRY of Citizenship The Netherlands First Name Hein RESIDENCE City State or Foreign Country Country of Citizenship Country of Citizenship The Netherlands The Netherlands FOST OFFICE Post Office Address City State or Country Country of Citizenship The Netherlands The Netherlands The Netherlands State or Country					The N	etherlands		
RESIDENCE City State or Foreign Country CITIZENSHIP Haarlem The Netherlands FOST OFFICE ADDRESS Suttnerstraat 89 FULL NAME LAST NAME INVENTOR TE Riele RESIDENCE City State or Foreign Country The Netherlands			Last Name	First Name	Middle Name or Initial		1401	
CITIZENSHIP Haarlem The Netherlands The Netherlands POST OFFICE ADDRESS Suttnerstraat 89 2037 LG Haarlem The Netherlands FULL NAME LAST Name INVENTOR to Riele RESIDENCE City CITIZENSHIP Amsterdam The Netherlands POST OFFICE Post Office Address City City City State or Country Country of Citizenship The Netherlands The Netherlands The Netherlands The Netherlands The Netherlands State or Country City State or Country State or Country The Netherlands POST OFFICE Post Office Address City State or Country Zip Code		INVENTOR		Els				
POST OFFICE ADDRESS Suttnerstraat 89 FULL NAME LAST Name INVENTOR to Riele RESIDENCE CITY State or Country COUNTRY The Netherlands First Name Hein State or Foreign Country Country of Citizenship The Netherlands The Netherlands First Name Hein Country of Citizenship The Netherlands The Netherlands Fost Office Post Office Address City City State or Country State or Country The Netherlands Fost Office Post Office Address City State or Country State or Country State or Country Zip Code	8	RESIDENCE	City	State or Foreign Country		Country of Citizens	NIO ·	
ADDRESS Suttnerstraat 89 FULL NAME Last Name INVENTOR to Riele RESIDENCE City Amsterdam The Netherlands First Name Hein State or Foreign Country CITIZENSHIP Amsterdam The Netherlands The Netherlands FOST OFFICE Post Office Address City State or Country City State or Country State or Country State or Country Zip Code	7	CITIZENSHIP		The Netherlands		The Netherl	ands	
ADDRESS Suttnerstraat 89 FULL NAME LAST Name INVENTOR to Riele RESIDENCE City Amsterdam The Netherlands Citizenship Amsterdam The Netherlands The Netherlands Fost Office Post Office Address City State or Country City State or Country Zip Code		ADDRESS Suttnerstraat 89 2037 LG Haarlem The		City	State or C	Ountry	Zip Code	
INVENTOR to Riele RESIDENCE City State or Foreign Country CITIZENSHIP Amsterdam POST OFFICE Post Office Address ADDRESS City City State or Country City State or Country Zip Code				etherlands	j			
RESIDENCE City State or Foreign Country CITIZENSHIP Amsterdam The Netherlands The Netherlands POST OFFICE Post Office Address City City State or Country Zip Code	Ţ	FULL NAME	Last Marine	First Name				
CITIZENSHIP Amsterdam The Netherlands The Netherlands POST OFFICE Post Office Address City State or Country Zip Code				Hein				
POST OFFICE Post Office Address City State or Country Zip Code	~	RESIDENCE	City	State or Foreign Country		Country of Citizenship		
ADDRESS De Country	×	CITIZENSHIP	<u> </u>	The Netherlands		The Netherlands		
ADDRESS Da Costakade 128 1953 XB Amsterdam The Netherlands	ĺ		Post Office Address	City	State or C	ountry	ZID Code	
	ᆜ	ADDRESS	Da Costakade 128	1053 XB Amsterdam	The N	etnerlands		

ements made herein of my own knowledge are true and that all statements made in information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing there

Signature of Inventor 201	Signature of Inventor 202	Signature of Inventor 203
Min Va	SISTILL	47-
12/2/199!	12/2/194	Date 12/1/4/
TAT 14A (12/87)	12/2/194	1 /2/1/4/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Berns et al.

Serial No.: 09/253,818

Group Art Unit: 1632

Filed: February 19, 1999

Examiner: Woitach, Joseph T.

For:

HIGH EFFICIENCY GENE TARGETING Attorney Docket No.: 8535-055-999

IN MOUSE EMBRYONIC STEM CELLS

REVOCATION AND POWER OF ATTORNEY

Assistant Commissioner for Patents Washington, D.C. 20231

SIR:

The undersigned assignee of the entire interest in the above-identified subject application hereby revokes all previous powers of attorney and appoints Berj A. Terzian (Reg. No. 20060), David Weild, III (Reg. No. 21094), Barry D. Rein (Reg. No. 22411), Charles E. McKenney (Reg. No. 22795), Philip T. Shannon (Reg. No. 24278), Francis E. Morris (Reg. No. 24615), Charles E. Miller (Reg. No. 24576), Gidon D. Stern (Reg. No. 27469), John J. Lauter, Jr. (Reg. No. 27814), Brian M. Poissant (Reg. No. 28462), Rory J. Radding (Reg. No. 28749), Stephen J. Harbulak (Reg. No. 29166), Donald J. Goodell (Reg. No. 19766), Thomas E. Friebel (Reg. No. 29258), Laura A. Coruzzi (Reg. No. 30742). Geraldine F. Baldwin (Reg. No. 31232), Victor N. Balancia (Reg. No. 31231), Samuel B. Abrams (Reg. No. 30605), Steven I. Wallach (Reg. No. 35402), Adriane M. Antler (Reg. No. 32605), Thomas G. Rowan (Reg. No. 34419), James G. Markey (Reg. No. 31636), Thomas D. Kohler (Reg. No. 32797), Scott D. Stimpson (Reg. No. 33607), Gary S. Williams (Reg. No. 31066), Ann L. Gisolfi (Reg. No. 31956), Kelly D. Talcott (Reg. No. 39582), Francis D. Cerrito (Reg. No. 38100), Anthony M. Insogna (Reg. No. 35203), Brian M. Rothery (Reg. No. 35340), Brian D. Siff (Reg. No. 35679), Michael J. Lyons (Reg. No. 37386), Nikolaos C. George (Reg. No. 39201), Stephen S. Rabinowitz (Reg. No. 40286), Ognjan V. Shentov (Reg. No. 38051), Kenneth L. Stein (Reg. No. 38704), Nanda K. Alapati (Reg. No. 39,893),

NY2 - 1361260.1

Andrew J. Gray (Reg. No. 41,796), Henry C. Lebowitz (Reg. No. 36,196) and Karen G. Horowitz (Reg. No. 35,199), all of Pennie & Edmonds LLP, whose addresses are 1155 Avenue of the Americas, New York, New York 10036, 1667 K Street N.W., Washington, DC 20006 and 3300 Hillview Avenue, Palo Alto, CA 94304, and each of them its attorneys, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Please direct all future correspondence to Pennie & Edmonds LLP, located at 1155 Avenue of the Americas, New York, N.Y. 10036-2711, and direct all telephone calls to Pennie & Edmonds LLP at (212) 790-9090.

Respectfully submitted,

Date:

10/16/02

By:

W. Bradford Middlekauff, J.D.

Senior Vice President, General Counsel and Secretary

GENPHARM INTERNATIONAL, INC.

2375 Garcia Avenue

Mountain View

California 94043

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, ANTON BERNS, residing at Floris Bal	thasarstraat 2, 2064 XP Spaarndam,
(name and addresses of inventors as they appear on The Netherlands; ELS ROBANUS MAANDAG, residing a	application Declaration)
The Netherlands; ELS RUBANUS MAANDAG, residing at	Da Costakade 128, 1053 XB Amsterdam,
The Netherlands; and HEIN TE RIELE, The Netherla	ands
hereinafter referred to as "Assignors", are the inventors of the inventor application for United States Letters Patent:	ntion described and set forth in the below identified
Title of invention: GENE TARGETING IN ANIMAL CEL	LS USING ISOGENIC DNA CONSTRUCTS
Date(s) of execution: 12/2/91	
Filing date: August 20, 1991 Serial No	. <u>07/748,342</u> ; and
WHEREAS, <u>GENPHARM INTERNATIONAL</u> , INC. (name and address of Assignee)	of 2375 Garcia Avenue,
Mountain View, California 940	943
hereinafter referred to as "Assignee". is desirous of acquiring an inter Patent and Registrations which may be granted on the same:	rest in the invention and application and in any Letters
FOR good and valuable consideration. receipt of which is hereby and by these presents do assign to Assignee all right, title and interforeign counterparts (including patent, utility model and industrial desto any Letters Patent and Registrations which may hereafter be granthroughout the world. The right, title and interest is to be held and assigns as fully and exclusively as it would have been held and enjoye the full term of any Letters Patent and Registrations which may be grain whole or in part, substitution, conversion, reissue, prolongation or exclusively.	erest in and to the invention and application and to all signs), and all future improvements thereon, and in and ted on the same in the United States and all countries enjoyed by Assignee and Assignee's successors and d by Assignors had this assignment not been made, for anted thereon, or of any division, renewal, continuation
Assignors further agree that they will, without charge to Ass Assignee in the prosecution of U.S. patent applications and foreign (b) execute, verify, acknowledge and deliver all such further papers, ir and (c) perform such other acts as Assignee lawfully may request to the invention and improvements in any and all countries, and to vest assigns.	counterparts on the invention and any improvements. Including patent applications and instruments of transfer. Obtain or maintain Letters Patent and Registrations for
IN TESTIMONY WHEREOF, Assignors have signed their na	ames on the dates indicated.
$\Omega \sim \Omega$	12/2/1991
	12/2/1991
(signature of Assignors as written above)	12/2/q/
STATE OF	·
) SS.	•
COUNTY OF)	
Before me, a Notary Pub	lic, duly commissioned and sworn, personally appeared
	, personally known to me
(or proved to me on the basis of satisfactory evidence) to be the person	on() whose name()
are subscribed to the within instrument, and acknowledged to me that	the executed the same.
IN WITNESS WHEREOF I have hereunto set my hand and a	affixed my official seal in the
County of	on the date set forth in this certificate.
	Notary Public

My commission expires:

TOWNSEND and TOWNSEND

.-One Market Plaza
Steuart Street Tower. 20th Floor
San Francisco, California 94105